

# ENTOMOLOGICAL NEWS

AND

## PROCEEDINGS OF THE ENTOMOLOGICAL SECTION

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## The Poplar Bark Aphid (*Schizoneura populi* n. sp.)

C. P. GILLETTE.

(Plate I)

I have noticed a pale yellow schizoneuran infesting the crevices in the bark of trunks and limbs of the native narrow-leaved cottonwood, the broad-leaved poplar, the Carolina poplar, and the balm of Gilead, for several years upon the Western Slope, in Colorado. I have noted the louse as specially numerous at Grand Junction, Delta, Paonia and Montrose.

The white cottony secretion often fills nearly all of the crevices in the bark and it remains throughout the year, hiding the lice and their eggs.

On June 14th, of last year, Mr. E. P. Taylor told me of finding one of the winged lice, and two days later I collected a good number lodged upon Mr. Taylor's porch screen, there being some badly infested balm of Gilead trees in front of the house. At this time eggs and young were very numerous. Mr. Taylor noted the appearance of winged lice for about two weeks, when they disappeared for the remainder of the summer. As fast as winged lice appeared they left the trees, but I have not been able to get any clue as to where they go.

I attempted to get them to locate upon cottonwood twigs by inclosing them with twigs in a breeding cage, but without success.

While it seems probable that the winged migrants establish new colonies somewhere, perhaps upon some different food plant, it is also certain, as in the case of *Chermes coloradensis*, that some of the apterous females live over winter upon the trees, for bark which I removed January 29th, at Grand Junction, was found to have living lice and some eggs. These eggs I was able to hatch in the laboratory, and the young established themselves upon cottonwood twigs that were furnished them and did well. When very numerous, the lice often cause rough, knot-like growths of trunk or branches, much as in the case of *Schizoncra lanigera* of the apple.

*The Eggs.*—The eggs are very pale straw yellow, much lighter than any of the *Chermes* eggs I have seen, and are .023 mm. in length by .014 mm. in width. The eggs are not attached but simply entangled by the cottony secretion.

*Young.*—The newly hatched young are like the eggs in general color, with legs, antennæ and distal end of the long beak dusky, and the eyes bright red.

*Adult Apterous Female.*—The adult apterous females are also very light yellow in color, the older individuals being the darker. Large females measure approximately .8 mm. long by .6 mm. broad. The size and arrangement of the wax glands or plates are best indicated in the drawing, Plate I, Figs. D and E. The only plates showing on the ventral surface are the marginal ones, while dorsally all the longitudinal rows extend continuously to the eighth abdominal segment. At least they can be so traced in some individuals. The beak is peculiar, in that it may be extended so as to attain, or even surpass, the tip of the abdomen, when it appears to be four-jointed. The rather long basal piece seems to serve as a tube into which the next joint, the real first joint, composed of seven or eight serial pieces, as shown in the figure, may be telescoped. The two distal joints are both quite short. From specimens taken June 16th, and December 12th, 1906, at Grand Junction.

*Winged Female.*—Length of fore-wing, 3.50 to 3.75 mm.;

hind-wing, 2.35 to 2.75 mm. Length of body,  $1\frac{1}{2}$  to 2 mm. Antennæ, 6-jointed, length, .8 mm. Joints 1 and 2, short and stout, the 2nd a little longer than broad; 3rd, longest, equaling 4th and 5th together; 5th, a trifle longer than 4th; and 6th, distinctly longer than 5th. The proportions of the 4 distal joints are about as follows: 21, 9, 11, 15. Total length of antenna a little less than one-half length of body. Compound eyes, ocelli, abdomen, tips of tarsi and antennæ, and more or less of the thorax above, dusky to black, otherwise pale yellow. The anterior wing has a very distinct, though narrow, black line extending from the base along the subcostal nerve, but a little beneath it and terminating on the costal margin just beyond the stigma. A similar black line starts on the anal margin of the hind-wing close to the body and extends forward and outward to meet the costal nerve and then turns at an acute angle back to the costal margin close to the body. Body and wings are powdered with a white secretion and from thorax and abdomen a white waxy secretion forms in long, slender threads, nearly or quite hiding the body. Antennal spur of 6th joint not over 1-5 length of joint and with a large sensorium at its base, also large oval sensoria near distal ends of joints 4 and 5, and along the underside of joint 3, where there are about 6.

Described from specimens taken at Grand Junction, Colorado, June 16th, 1907.

#### DESCRIPTION OF PLATE I.

Plate I. *Schizoneura populi*.—A, antenna of alate female  $\times 100$ ; B, winged female  $\times 70$ ; C, antenna of apterous female  $\times 280$ ; D and E, ventral and dorsal views of adult apterous female, showing arrangement of wax plates or glands  $\times 70$ .

Miriam A. Palmer, artist.

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EDITOR ENTOMOLOGICAL NEWS:—If Mr. W. E. Longley will look over the collection which I sold Field Columbian Museum, I think he will find a specimen of *Sesia titan* with label showing that it was taken at North Evanston, Ill., a little farther north than Oak Park. At least two examples of that species were taken there, but both worn, showing that they had probably traveled from a warmer climate.—ARTHUR J. SNYDER, Springfield, Idaho.